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IS 11574 (1986): Polyamide Filter Cloth [TXD 33: Industrial Fabrics]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 11574 - 1986

Indian Standard
SPECIFICATION FOR
POLYAMIDE FILTER CLOTH

UDC 677.494.675.074 : 66.067.332



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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

AMENDMENT NO. 1 MAY 1990
TO
IS : 11574 - 1986 SPECIFICATION FOR
POLYAMIDE FILTER CLOTH

(This amendment is being issued to include an additional variety which have found acceptance for the filtration of zinc sulphate slurry.)

(*Page 3, clause 1.1*) — Substitute 'ten varieties' for 'nine varieties'.

(*Page 4, Table 1*) — Insert the following variety in the table as Variety 1 and renumber the Variety No. 1 to 9 as Variety No. 2 to 10:

TABLE 1 REQUIREMENTS OF POLYAMIDE FILTER CLOTH

(*Clause 3.1*)

VARIETY NUMBER	ENDS PER dm	PICKS PER dm	MASS g/m ²	BREAKING LOAD ON 5 × 20 cm STRIP, <i>Min</i>		AIR PERMEA- BILITY cm ³ /cm ² /s	DIMENSIONAL CHANGES ON WASHING TO BE TESTED AT BOILING WATER	WEAVE
				Warp	Weft			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	770	430	120	N 1275	N 575	20.5	±2 per- cent	5 end satin

(TXD 24)

Indian Standard

SPECIFICATION FOR POLYAMIDE FILTER CLOTH

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Indian Standard

SPECIFICATION FOR POLYAMIDE FILTER CLOTH

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 3 March 1986, after the draft finalized by the Industrial Textiles Sectional Committee had been approved by the Textile Division Council.

0.2 Polyamide filter cloths are being increasingly used by various industries like ceramic, oil, petroleum, chemicals, etc, in the country. Standardization of these filter fabrics will give impetus to this industry.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements of nine varieties of polyamide filter cloth.

2. MANUFACTURE

2.1 Yarn — The polyamide yarn shall be light and heat resistant, and shall be made from nylon-6 or nylon-66 filament yarn.

2.2 Cloth — The filter cloth, when visually examined, shall be reasonably free from weaving and other processing defects.

2.2.1 The cloth shall be heat set to obtain dimensional stability if the yarn used is not already heat stabilized.

*Rules for rounding off numerical values (*revised*).

3. REQUIREMENTS

3.1 The filter cloth shall comply with the requirements of Table 1.

TABLE 1 REQUIREMENTS OF POLYAMIDE FILTER CLOTH

VARI- TY No.	ENDS PER dm	PICKS PER dm	MASS g/m ²	BREAKING LOAD ON 5 × 20 cm STRIP, Min		AIR PERME- ABILITY cm ³ /cm ² /s	DIMENSIONAL CHANGES ON WASHING (TO BE TES- TED AT BOIL- ING WATER) (8)	WEAVE (9)
				Warp	Weft			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				N	N			
1	250	185	220	2 980	2 140	5	Shall not exceed	Plain
2	224	168	240	2 745	3 040	5	± 2 percent in	do
3	480	115	240	2 550	2 205	2.5	both length	do
4	280	132	300	3 095	3 530	2.5	and width	do
5	232	112	390	5 000	3 500	2.5	directions	do
6	264	144	475	6 000	5 000	2.5		2/2 Twill
7	164	112	520	7 000	4 000	10		do
8	204	144	580	7 000	6 000	10		do
9	200	148	600	7 000	6 500	10		do
TOL- RANCE	± 2.5 per- cent	± 5 per- cent	+ 5 — 2.5 percent	—	—	± 1.5	—	—

METHOD OF TEST	IS : 1963- 1981*	IS : 1964- 1970†	IS : 1969-1985‡	IS : 11056- 1984§	IS : 1299- 1984	Visual
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NOTE — 1 N = 0.102 kgf approximately.

*Method for determination of threads per unit length in woven fabrics.

†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).‡Methods for determination of breaking load and elongation of woven textile fabrics (*second revision*).

§Method for determination of air permeability of fabrics.

||Method for determination of dimensional changes on washing of fabrics woven from rayon and synthetic fibres (*second revision*).

3.2 The length and width of filter cloth shall be as agreed to between the buyer and the seller subject to following tolerances when tested by the method shown against these:

Characteristic	Tolerances	Method of Test
Length	+ 2.0 percent — 1.0 percent	IS : 1954-1969*
Width	± 1.0 percent subject to a minimum of 1 cm in each direction	do

*Methods for determination of length and width of fabrics (*first revision*).

4. MARKING

4.1 The filter cloth shall be marked with the following:

- a) Name of the material;
- b) Variety No;
- c) Width and length of the piece;
- d) Manufacturer's name, initials or trade-mark, if any; and
- e) Month and year of manufacture.

4.1.1 The filter cloth may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4.2 At both the ends of the piece, the filter cloth shall be marked with an identification mark.

5. PACKING

5.1 The filter cloth shall be packed in bales or cases, in conformity with the procedures laid down in IS : 1347-1972* or IS : 293-1980† as required.

6. SAMPLING AND CRITERIA FOR CONFORMITY

6.1 For ends/dm, picks/dm, mass in g/m² and breaking load tests the scale of sampling and criteria for conformity as laid down in IS : 3919-1966‡ shall be followed.

6.2 For dimensional shrinkage tests, the scale of sampling and criteria for conformity as laid down in IS : 5463-1969§ shall be followed.

6.3 For air permeability tests, the scale of sampling and criteria for conformity as laid down for breaking load test in IS : 3919-1966‡ shall be followed.

*Specification for inland packaging of cotton cloth and yarn (*first revision*).

†Specification for seaworthy packaging of cotton yarn and cloth (*third revision*).

‡Methods for sampling of cotton fabrics for determination of physical characteristics.

§Methods for sampling of cotton fabrics for chemical tests.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

QUANTITY	UNIT	SYMBOL	DEFINITION
Force	newton	N	$1 \text{ N} = 1 \text{ kg.m/s}^2$
Energy	joule	J	$1 \text{ J} = 1 \text{ N.m}$
Power	watt	W	$1 \text{ W} = 1 \text{ J/s}$
Flux	weber	Wb	$1 \text{ Wb} = 1 \text{ V.s}$
Flux density	tesla	T	$1 \text{ T} = 1 \text{ Wb/m}^2$
Frequency	hertz	Hz	$1 \text{ Hz} = 1 \text{ c/s (s}^{-1}\text{)}$
Electric conductance	siemens	S	$1 \text{ S} = 1 \text{ A/V}$
Electromotive force	volt	V	$1 \text{ V} = 1 \text{ W/A}$
Pressure, stress	pascal	Pa	$1 \text{ Pa} = 1 \text{ N/m}^2$



INDIAN STANDARDS INSTITUTION

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 331 0131 331 1375

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices:

Telephone

*Western : Manakalaya, E9 MIDC, Marol Andheri (East) BOMBAY 400093 6 32 92 95

†Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola, CALCUTTA 700054 36 24 99

Northern : SCO 445-446, Sector 35-C CHANDIGARH 160036 { 2 18 43
3 16 41

Southern : C. I. T. Campus, MADRAS 600113 { 41 24 42
41 25 19
41 29 16

Branch Offices:

*Pushpak, Nurmohamed Shaikh Marg, Khanpur AHMADABAD 380001 { 2 63 48
2 63 49

*F' Block, Unity Bldg, Narasimharaja Square, BANGALORE 560002 22 48 05

Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHOPAL 462003 6 67 16

Plot No. 82/83, Lewis Road, BHUBANESHWAR 751002 5 36 27

53/5 Ward No. 29, R. G. Barua Road, 5th Byelane, GUWAHATI 781003 —

5-8-56C L. N. Gupta Marg, HYDERABAD 500001 22 10 83

R14 Yudhister Marg, C Scheme, JAIPUR 302005 { 6 34 71
6 98 32

117/418 B Sarvodaya Nagar, KANPUR 208005 { 21 68 76
21 82 92

Patliputra Industrial Estate, PATNA 800013 6 23 05

Hantex Bldg (2nd Floor), Rly Station Road, TRIVANDRUM 695001 62 27

Inspection Office (With Sale Point):

Institution of Engineers (India) Building, 1332 Shivaji Nagar, PUNE 411005 5 24 35

*Sales Office in Bombay is at Novelty Chambers, Grant Road, BOMBAY 400007 89 65 28

†Sales Office in Calcutta is at 5 Chowringhee Approach, P.O. Princep Street, CALCUTTA 700072 27 68 00